## Title

Who Benefits from Local? Participants in Direct-to-Consumer Marketing Outlets for Agricultural Products in Los Angeles



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# Who Benefits from Local?
## Participants in Direct-to-Consumer Marketing Outlets for Agricultural Products in Los Angeles

A dissertation submitted in partial satisfaction of the
requirements for the degree Master of Urban and Regional Planning

by

Stephanie Kellogg

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ABSTRACT OF THE THESIS

Who Benefits from Local?
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By

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Master of Urban and Regional Planning
University of California, Los Angeles, 2019
Professor Chris Tilly, Chair

## Abstract

The purpose of this study was to assess the attributes of vendors certified to sell produce in Los Angeles County farmers' markets and relate these vendor attributes to goals of the "local food movement." This movement is characterized by marked consumer preference for locally produced food. In particular, data were collected through qualitative interviews and quantitative producer output records to determine whether markets support an alternative production model akin to the local food movement, or whether markets supplement established mass-production oriented producers. Markets are considered to support a different kind of agricultural practice if participants in the markets are largely growers that rely on Direct-to-Consumer (DTC) marketing for a significant portion of their revenue. Because reliable responses to this line of inquiry are particularly rare, results are not conclusive. Instead, they are meant to draw inferences, and help to provide context for a more thorough analysis of the topic. This research demonstrates that farmer's markets benefit both more large-scale producers and small-scale than is typical for farms in California, but are also particularly detrimental to mid-scale producers.

The thesis of Stephanie Kellogg is approved.

Vinit Mukhija

Susana Hecht

Chris Tilly, Committee Chair

University of California, Los Angeles

2018

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# Introduction

The local food movement and the corresponding surge in demand for locally produced agricultural products has created an opportunity to address some of the major concerns surrounding the modern agricultural industry, including the environmental impact of intensive land use, monoculture cropping, and increasing mechanization. However, the potential of the movement to impact the industry depends on consumer demand for local products supporting a new production model, rather than supplementing established producers and allowing them to continue relying on unsustainable industrial practices.

The existing literature demonstrates that nationally, demand for local products does not necessarily benefit producers primarily focused on marketing locally, but often provides supporting revenue to conventional grower producers, large in size and distant from consumers, as discussed in more detail in the literature review. Results from this literature are varied however, and it is unclear on a national scale whether Direct-to-Consumer (DTC) marketing in particular is benefiting smaller scale farms or established mass-producers. There are little data available in California to further analyze the condition regionally. This thesis will begin to address this gap in knowledge by providing the foundation of data to further analyze the status of DTC marketing in the state, and examining what kind of producers are participating in direct-to-consumer marketing, particularly farmers' markets, in Los Angeles County, and posing the question whether these markets are promoting change in the agricultural industry.

# Background and Conceptual Framework

Consumer-driven demand for a more personalized and small-scale approach to agriculture began in the late 1960s as part of the environmental and social justice movements, and as a response to the post-war industrialization of farming (Martinez et al., 2010). Advocates were primarily concerned about pesticides and food access, and independence from the mass

production system that built distance between the consumer and the food they were consuming (Coit, 2008). Over the years the local food movement grew as an offshoot of these movements, and gradually became a nation-wide campaign. Advocates today extoll the benefits to local economies, the environment, and health (King, et al. 2014).

As the local food movement grows, farmers' markets have begun appearing in cities around the country, and restaurants and retail outlets are racing to keep up with demand for locally sourced produce. In 2018, the National Restaurant Association rated "hyper-local," or serving food from inputs grown or produced on site, as the hottest culinary concept trend. "Locally sourced meat and seafood" and "locally sourced produce" took 5th and 6th place, respectively (National Restaurant Association, 2018). Yet many of the claims about "local food" that underpin this craze are at best difficult to verify, and at worst deceptively over-simplified.

## What is Local?

Despite the rising popularity of locally sourced food, there is little information on who the participants in these local markets are, and what part they play in the agricultural industry. This makes it difficult to reliably determine their broader impact on the trends in the regional agricultural system of production.

Compounding this problem is the fact that there is little to no definition of what "local" is. The 2008 U.S. Food, Conservation, and Energy Act limits local and regional food to that which is sold less than 400 miles from its origin for its purposes (Martinez, et al. 2010). The Los Angeles Food Policy Council defines its food shed as anything within a 200-mile radius (LA Food Policy Council, 2018). Yet a 400 or 200-mile radius alone would not encompass what most consumers would consider important while buying "local" foods. "Local" has a wide variety of different meanings to different people, but generally is taken to imply that the food is healthier, and is grown on a smaller, perhaps family-owned farm, and that the customer could meet with the farmer personally and shake their hand. It implies environmental stewardship, along with

many other concepts that are not included in a purely geographic definition of the term (Robinson and Farmer, 2017).

## Why Local?

The top two reasons that consumers buy products labeled as "local" according to the Food Marketing Institute, are a desire for food that is fresh or in season, and a desire to support the local economy (FMI, 2017). The survey also indicates that consumers are concerned about the environmental costs associated with transporting food across long distances. While advocates proport a wide variety of benefits from local food, including food quality, benefits to the local economy, and environmental benefits, there is a lack of substantiation behind these claims. This lack of understanding regarding the impact of local food markets, combined with their increasing popularity, makes understanding the impact that these markets really have on the industry ever more important (Martinez et al., 2010).

Promoters of the environmental virtues of local food generally point to reductions in vehicle miles traveled when purchasing from nearby farms. While it may be true that the average farmer travels a shorter distance to get food on your table than tomatoes do at your average grocery outlet, the process of buying from many individual small farmers also loses much of the efficiency that major producers have developed in transporting their goods, and as a result local food may actually produce a larger environmental impact from transit than the alternative (Low et al., 2015). Further critiques of the existing agroecological system, such as the dependence on monoculture, heavy energy use, or ecological deterioration, have very little to do with whether a product was purchased "locally" or not. Instead these concerns have more to do with a general need to support alternative farming practices.

Claims about benefits "for the local economy" are even more nebulous. Almost all research in this area uses versions of an input-output analysis to show benefits in jobs and import substitution for local communities (Low, et al. 2015; McFadden, et al. 2016; Robinson

and Farmer, 2017). Very few even consider opportunity costs or impacts on a larger scale than a small region (Low et al., 2015). This is a large oversight, given the broad state and national support for local food programs, and the increased complexity of regional economic analysis that includes the economic impact on regional vendors that do not participate in local food markets.

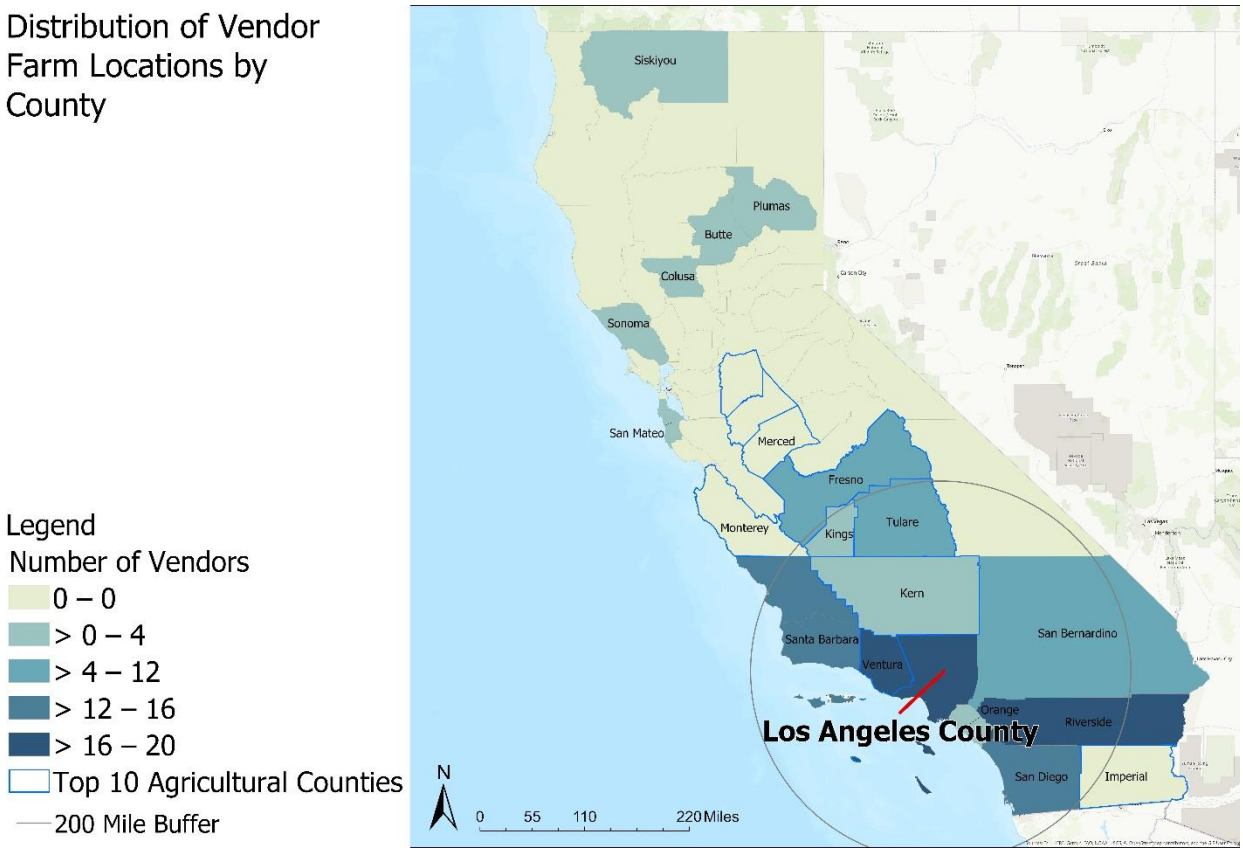
These complications and concerns remain even if one simply disregards the most common arguments for local food and instead simply considers DTC farming as an alternative to supporting the kind of modern agriculture that takes such an enormous toll on the environment. There are mixed results regarding local farm performance of environmentally friendly agricultural practices. As a small example, farms that market their products locally around the US are more likely to use manure (rather than chemical fertilizers), compared to those that do not (Low et al., 2015). However, as it currently stands, smaller farms that are more likely to participate in DTC marketing (Martinez et al., 2010) lose the economies of scale that allow large, mass-production farms to use land intensively (Sexton, 2009). This opens up a "sharing versus sparing" debate (about whether localized, intensive farming practice is better for conservation purposes, or more wide-spread, less intensive land use) that is still hotly debated in academia (Pearce, 2018). Whether or not alternative agroecological systems will become more land-efficient or intensive in the future is an important and valuable question to consider. It is also important to consider whether supporting DTC or other kinds of "local" farming practices when they are inefficient will provide the support necessary for these farms to eventually drive innovative and conscientious systematic change. The problem, however, is that these questions are not being asked.

These are just a small sample of different concerns and practices involved in the environmental impact of agriculture, and it is not clear what the tradeoffs involved are or what the most important indicators are. Adding in national economics and jobs, as well as concerns

about the deindustrialization of rural America and its impact on the rural economy, and you get an enormously complex issue, wrapped in other complex issues, wrapped in complex politics. These are all very important concerns worth investigating, but they are rarely debated in local food spheres.

All of these ambiguities are especially present in California, the country's top agricultural producer in terms of crop cash receipts (CDFA, 2018a). In this state, what markets are "local" and what are "national", as well as everything in between, is often difficult to distinguish. This applies even more to Los Angeles, which borders some of the top producing agricultural regions in the country (see Figure 1 below). Small-scale farmers and mass-production farmers that might participate in farmers' markets are often coming from the same area, so the geographic definition of "local" loses its meaning, unless the intent is to imply hyper-local backyard producers. This research assumes that this is not the intent. As discussed below in "Results", hyper-local agricultural producers are likely to comprise a small portion of agricultural vendors at these markets (see Table 2). For the purpose of this research, a market "encounter" counts a vendor each time they appeared at a market, and thus counts some vendors multiple times. This allows us to generate a picture of what individual markets look like, rather than only considering vendors on their own.

*Figure 1: Vendor Origins and Top Agricultural Counties*




*Data from CDFA (2018a, 2018b)*

It is apparent from this analysis that the geographic definition of "local" in this circumstance is, to an extent, functionally meaningless. What is left is a more connotative definition of the phrase. If consumers want "fresh" produce, in a way that has little to do with the geographic distance between them and the point of production, this must mean that the produce was grown or delivered in a way that is different from generic produce from a grocery store. If they are concerned about supporting the "local" economy, but that does not include the geographically adjacent generic producers, there must be something that they consider more "local" connotatively in the producers they meet at the farmers' market. If their concern is for the environment, they must believe that producers at farmers' markets use different practices from generic producers. Despite the ambiguity in the definition and impact of local food, it is

apparent that the goals of the local food movement involve a significant divergence from the established mass-production system of agriculture.

There are some clear examples of this thought process in the literature, discussed below. Proponents of the environmental benefits of local food, for example, decry the enormous carbon footprint of the modern industrial agricultural system, the lack of reverence for local ecologies, the consumption of native habitat and erosion of lifetimes-worth of soil health. Instead they often promote home-grown food, urban gardens, and integrated, regenerative polyculture. Those concerned with health point to the low nutritional value of produce bred to last and withstand long-distance transport, essential to any large-scale agricultural industry. Those concerned about the local economy believe that mass production agriculture is redistributing the funds spent on food locally to external regions and countries. In all of these cases, the point of buying local is to participate in and support an alternative food production system. The essential question then, is whether local food markets are supporting producers that are driving an alternative agroecological infrastructure, or whether it is supporting established, classical industrial producers.

### Defining Local Food

The obvious way to define local food, in order to analyze it for this study, is by defining a geographic radius from which the food can be sourced. As discussed above, however, this misses the connotative definitions of "local" that tend to drive consumers to these markets. Geographic distance is also often deceptive and difficult to verify. In the first place, it is not a variable that is consistently measured or commonly available. In the context of this study, for example, while we obtained data on which farms participated in the surveyed markets, and we also obtained certificate data on all farms from the Los Angeles County Agricultural Commissioner's Office (ACWM, 2019a), all information that could identify individual farms, including addresses, were redacted from the data. The best data this research obtained was from noting the county listed

on each vendor's market banner (See "Results" section below). Secondly, the definition of an acceptable maximum radius varies wildly between individuals and organizations, as discussed in the section "What is Local" above.

The simplest method that this study found to define local food was anything sold through direct-to-consumer (DTC) marketing. This is the closest parallel to "local" that is defined and used in the literature, and involves selling produce directly to the final customer, rather than through intermediaries like supermarkets. Types of these markets typically include farmers' markets, on-farm markets (such as a farm stand,) and Community Supported Agriculture, or CSAs (traditionally a kind of community market share in the success of a local farm, but more packaged produce services such as a produce box that you pay for, then the farm later delivers). In 2012, California produced more in DTC sales than any other state (USDA, 2012). Los Angeles County, in particular, had the most certified farmers' markets in the state in the first quarter of 2018, with more than twice the number of the succeeding county, San Diego (CDFA, 2018b).

### Why Farmers' Markets?

To understand whether the movement is having an impact, positive or negative, in any of these areas that it claims to, we need to understand whom the movement is supporting – established producers, or pioneers of a new production model. Farmers' markets are the most efficient segment of the overall industry through which to study these questions, both because of the relatively large size of the market, and because of the level of documentation (Low et al., 2015).

Food marketed as local is usually sold through one of two ways: direct (DTC) or intermediated markets (Low, et al., 2015). DTC marketing usually involves either a farmers' market, Community Supported Agriculture (CSAs), or on-farm markets. Intermediated markets usually involve supermarkets selling food advertised as local. Intermediated markets are a

relatively new phenomenon, and little data are currently available on them. Farmers' markets tend to be the most prominent avenue studied in the literature, particularly because of required inspections and detailed certification procedures. California has its own division of the California Department of Food and Agriculture devoted to California Certified Farmers' Markets, while no such program exists in California for other DTC programs (CDFA, 2019a). Likewise, USDA's Agricultural Marketing Service (AMS) publishes extensive research on DTC programming through farmers' markets (USDA, 2019). CSAs, on the other hand, are a relatively small market. The list of certified CSA producers in California, for example, includes 71 different individuals, five of which were a part of the larger "Farm Fresh to You" organization, as of June 3rd, 2019 (CDFA, 2019b). In contrast, the list of certified farmers' market producers is over 1,000 entries long for the same time period (CDFA, 2019c). While on-farm markets are studied by USDA, CDFA pays very little attention to them.

### Conclusion

Based on the reasoning above, this research assumes that the best way to determine the impact of local food on the regional agricultural industry and ecosystem is to evaluate the level to which local food markets support producers involved in an alternative agroecological model. Using DTC marketing as the functional definition of local markets, farmers' markets are then the most lucrative potential avenue of study. This research, then, focuses on answering the question of what characteristics define vendors at farmers' markets, whether these characteristics are different from typical agricultural producers in the region, and if so, why those differences exist, using Los Angeles County as a case study, in the context of the California agroecological system.

# Literature Review

Agriculture plays a critical role of influence on the environment in the modern era. According to the 2018 Living Planet report, "In one study carried out in 46 countries in the tropics and subtropics, large-scale commercial agriculture and local subsistence agriculture were responsible for about 40% and 33% of forest conversion between 2000 and 2010" (WWF, 2018). Agriculture is also a key contributor to global emissions, pollution, biodiversity loss, soil degradation, and habitat decline (WWF, 2018).

California is by far the nation's leading state in cash receipts for agricultural products, generating almost twice as much revenue as the next state (Iowa) as of 2017 (CDFA, 2018a). The state has held its ground as an agricultural cornerstone of the nation since 1948, producing largely high-value, high-risk crops that rely on California climate and irrigation systems to survive (Martin, et al., 2018). Unfortunately, agriculture is rarely thought of in the public consciousness as a critical driver of environmental health and sustainability. As discussed above, many of these concerns, when they are a prominent public concern, get wrapped in concepts and terms like "fresh" and "local".

There are some clear parallels between the goals of local food and those of the food sovereignty movement. Local food tends to emphasize the benefits of "local" on health (particularly in terms of "freshness"), local environmental ecosystems, and the local economy (Gomez and Hand, 2014). However, there is also a very important underlying goal of independence, opposition, reconnection to nature, and accountability (Robinson and Farmer, 2017). Like proponents of food sovereignty, however, these claims are often not examined very critically (Jansen, 2015). Both philosophies contain elements of "feel-goodism", including social justice and empowerment, and rebellion from mass industrial agriculture (Jansen, 2015). In a world increasingly in environmental crisis, however, it is essential to critically examine the

impact that our agricultural policies have, and whether they are objectively driving a more sustainable and conscious future.

There is substantial data regarding participation in DTC marketing operations at a national level. We know from the 2012 USDA Census of Agriculture (USDA, 2012) and the subsequent Economic Research Service report (Low, et al., 2015) that nationally most farms that participate in DTC marketing are small (defined as generating less than $75,000 in income), but most of the sales from DTC marketing come from large farms (defined as generating income above $350,000) (see Table 1 below).

*Table 1: National Trends in Direct-to-Consumer Marketing*

| Indicator | 2012 |
|---|---|
| US Farms Marketing Directly | 7.8% |
| Exclusively DTC Farms | 5.5% |
| Increase in Farms from 2007 | 5.5% |
| Increase in Sales from 2007 | 0% |
| DTC Farms that are Low Output[1] | 85% |
| DTC Sales from Low Output Farms | 13% |
| DTC Farms that are Mid-to-High Output[2] | 5% |
| DTC Sales from Mid-to-High Output Farms | 67% |

*USDA 2012 Census of Agriculture*

It is also important to consider not just who is participating in DTC marketing, but also whether that market is providing enough revenue to sustain the businesses involved. For those that do participate in DTC, there is mixed evidence regarding the benefits. There is evidence that farms that market directly are more likely to report profit over 5 years than those that do not. Furthermore, beginning farms (that have been in operation for less than 10 years) are more likely to survive if they participate in DTC marketing (Low, et al., 2015). This is particularly

[1] Income below $75,000
[2] Income above $350,000

significant because farm survival rates in the US are very low. Based on USDA Census of Agriculture data, “only 48.1 percent of beginning farmers in 2007 reported positive sales 5 years later” (Low, et al., 2015). This research also indicates, however, that farms which market directly grow more slowly than those that do not. Thus farms that participate in DTC farming on average have a higher survival rate, but also a slower growth rate.

Case studies of local supply chains have shown that it is difficult to predict who the beneficiaries of DTC marketing are (King, et al. 2014). For many large-scale producers, local marketing is not worth the administrative and labor costs, so it could provide an opportunity to enterprising smaller producers. Small-scale farmers also encounter barriers to entry, however, in the form of fixed costs such as food safety requirements or food storage infrastructure. Whether the smaller farms can overcome these obstacles often seems to depend on the broader regional industry, and the resources available to them. In California specifically, the presence of a strong, mass-production agriculture industry along with the strength of the local food movement in California indicates a strong possibility for existing mass-producers to take advantage of demand for local produce by participating in sales marketed as local. This could take opportunities away from less established producers. Or in contrast, the presence of a massive agricultural industry in the state could also provide an opportunity for smaller producers without the benefits of economies of scale, in the form of political and industrial infrastructure. This can include robust local county agricultural commissioner offices, state and local farm subsidies, local support for direct marketing, or access to storage sheds, produce aggregators, and specialty stores (King, et al. 2014).

Existing studies on direct marketing tend to either be hyper-local (such those focused on the local benefits of import substitution), or based on national-level general trends (usually funded by the USDA) (Low, et al., 2015). As discussed above, it is unclear on a national scale whether DTC marketing is benefiting small scale farms or established mass-producers. The data

available for California specifically follow the same pattern – there are USDA and California Department of Food and Agriculture (CDFA) statistics on industrial agriculture and DTC marketing, and there are studies of individual communities, but very little by way of substantial regional analysis. This research will begin to address this gap in knowledge by providing the foundation of data to further analyze the status of DTC marketing in the state, by using Los Angeles County as a case study to generate a profile of beneficiary producers from DTC marketing.

## Data & Methods

Much of the analysis in this report relies on the assumption that farmers' markets can be shown to support a new model of agriculture if the participating farms are significantly different from the average farm in California. Thus the data collected before surveys were conducted revolved around the producers in the existing California agriculture industry and what limited data existed with regards to DTC marketing in the state. The existing DTC data was then supplemented with interviews conducted at 18 markets around LA County. This resulted in three sets of data that were analyzed in this study; data from the 2017 USDA Census of Agriculture (USDA, 2019), data from the Los Angeles County Agricultural Commissioner's Office (ACWM, 2019a), and collected survey data from the described sample of farmers' markets.

*Market Selection*

This study relied on data from the California Department of Food and Agriculture (CDFA, 2019b) to compile a list of farmers' markets, and vendors certified to sell to them, in Los Angeles County. The list of registered certified vendors is freely and publicly available online (CDFA, 2019a). This was supplemented with data from a public information request, which included a list of CDFA certified farmers' markets by county, with each market's number of stalls

per quarter, which was used to indicate the "size" of the market (CDFA, 2018b). Only certified markets were considered, for consistency and because of the availability of data. To create the sample of markets that would be interviewed, CDFA data from the first quarter of 2017 were used to randomly select LA County markets for interviews, after strategically separating those markets into quartiles by size. This size differentiation was used in the data analysis to provide a method of contrasting different types of farmers' markets, thereby providing a richer analysis of factors influencing the type of vendor present and their purpose for choosing this venue of marketing. For example, if vendors from relatively large-scale agricultural productions were recorded more frequently, but only in large markets, this could indicate that large producers only participate in DTC marketing when the markets provide access to a significant consumer base.

The final list of markets was acquired by randomly selecting ten markets that fell below the first quartile for number of stalls in a quarter, and ten that fell above the third quartile. By the end of the interview data collection period, two of the selected markets were removed from the interview list; one because the market was only operated seasonally, and the other because the market included no produce. Thus, a total of 18 markets were surveyed, including 10 from the highest quartile of vendors and eight from the lowest quartile.

*Surveys*

The whole of the qualitative data from interviews was acquired in the first quarter of 2019. The interviews were carried out with all agricultural product vendors (with a few exceptions; see below) and market managers willing to be interviewed at this sample of 18 farmer's markets. Interviews were conducted by first approaching the market manager and asking permission to interview the vendors present. No market managers refused to allow vendors to be interviewed. Market managers were also asked for an interview themselves, in order to discern their hypotheses on the incentive structures in the industry and further

background information. Interviewees included all produce vendors, and any vendor of unprocessed agricultural products (such as beef or flowers). The definition of an agricultural product closely followed that outlined in the California Food and Agricultural Code, which states that "'Agricultural product' means a fresh or processed product produced in California, including fruits, nuts, vegetables, herbs, mushrooms, dairy, shell eggs, honey, pollen, unprocessed bees wax, propolis, royal jelly, flowers, grains, nursery stock, raw sheared wool, livestock meats, poultry meats, rabbit meats, and fish, including shellfish that is produced under controlled conditions in waters located in California." (CA FAC, 2019). Interviewees did not include vendors of exclusively nut products, as the interviewer's experience revealed that these booths were always aggregators of other farms' produce, rather than vendors representative of the produce grower themselves. Interviewees also did not include vendors of fish for the same reason. This experience is consistent with the Los Angeles County Agricultural Commissioner's Office process of producer certification, which classifies these products as "Noncertifiable Agricultural Products" that "can be sold inside the CFM without being listed on the CPC" (CDFA, 2019b). Vendors were approached for an interview if the producer represented had not been interviewed before at another surveyed farmers' market. If the producer had been interviewed before, their presence was noted, in order to develop a picture of what producers attend which markets.

Of the 18 markets surveyed, 12 returned market manager interviews (67%). One manager represented two markets (Brentwood and Downey), and so was not interviewed at the Brentwood market. At the other five markets the manager was not available for an interview at the time of the survey. All except five vendors agreed to be interviewed, though many knew very little of the operations of the farm. This resulted in 149 attempted interviews, with a success rate of 96.6 percent. If the vendor did not want to be interviewed, or could provide little information, the name and contact information of the farm was recorded, as well as their presence at the market.

A farmers' market in California can only be certified if "produce is brought to the market straight from the farm, either by the farmer personally, a family member, or by an employee. Only California grown produce may be certified" (ACWM, 2017). In return, farmers at a certified market are "exempted … from packing, sizing, and labeling requirements" (CDFA, 2019a). Only certified markets were included in this study, as documentation in certified markets is significantly more extensive than through other mediums such as on-farm markets, Community Supported Agriculture (CSAs), or uncertified community markets. The certification process requires that producers and market managers submit to regular inspections by the county agricultural commission. In the process, the commission both confirms that what the vendor has sold matches with what they grow, and also records the location and produce output of the farm.

*Survey Questions*

Separate sets of questions were asked for managers, vendors who were the farmers themselves or close relatives, and vendors who were representatives (see survey questions in Appendix 1). Both managers and vendors were asked a number of closed-ended questions, including some with numerical answers, but were also asked more open-ended questions. In all three cases (managers, farmers, and representatives) the survey instruments were short (several questions long) to facilitate easy and quick completion, but respondents were encouraged to speak at length if inclined to. All 18 market surveys included a count census of participants, resulting in a tally of all vendors (meaning a farm or a ranch) present at all markets surveyed, including a frequency count of how often individual producers were represented.

CDFA certified markets require that vendors either sell what they grow or be certified representatives of the grower. Because of this, all vendor interviewees were presumably either the grower of the produce, or a representative that has been certified to represent the grower. For growers, questions focused on details about the farm, the history and status of the business's involved with DTC marketing, and the farmer's rationale for participating in DTC marketing.

For authorized representatives, questions focused on their interaction with the farm, their experience as a sales representative, and what details they knew about the farm. Interviews with market managers focused on their management style, rules and regulations in the market, and their experience with vendors. All interviews were conducted over the course of a single day per market, with the consent of the market manager. Inconclusive information from interviews was supplemented with background research when possible, particularly when the vendor in question had an online presence. Some vendors did prove unable or unwilling to answer some questions, but most vendors answered most questions to the best of their ability, and the vast majority answered the basic quantitative questions.

In order to ascertain the role that farmers' markets played in the producers' business model, open-ended questions to vendors, especially growers, sought to flesh out the strategies that brought them to the farmers' markets where they sold and how they viewed the business and their future prospects. In many cases it did not prove possible to get answers to these more expansive questions, but the limited number of answers obtained are revealing. Markets are considered to support a different kind of agricultural practice if participants in the markets are largely growers that rely on DTC marketing for a significant portion of their revenue – i.e. the vendor would not be in business without DTC marketing. The opposite situation would be a typical farm oriented towards grower-packer-shippers, and the national and international market, that is supplementing their revenue with farmers' market sales. Complicating this picture, some producers used market revenue to supplement their primary business of selling to gourmet restaurants looking to advertise "local" ingredients. These restaurants are often considered within the local produce literature, but are not commonly considered DTC marketing.

Because reliable responses to this line of inquiry are particularly rare, results are not conclusive. Instead, they are meant to draw inferences, and help to provide context for a more thorough analysis of the topic. However, some key trends are clear from the data collected.

*Public Information Requests*

The CDFA regional data on all produce certified to be sold in LA County were acquired through a public information request to the LA County Agricultural Commissioner Weights and Measures (ACWM) office (ACWM, 2019a). Individual producers were identified only by certificate number. These data were used to obtain an estimate of producer output, using product value data from the CDFA 2017 Agricultural Report (CDFA, 2017), and if a crop was not available there, the USDA 2017 Crop Report (USDA, 2019). This was used to estimate the "size" of the vendor's production, providing a more statistically reliable valuation of the scale of participant operations than the self-report acreage obtained through interviews.

*Data Analysis*

The process of determining the "size" of the vendor's production through the ACWS data only provides a base estimate for many reasons, including that the original numbers are estimates from the producer of how much they believe they will produce. Nursery products were excluded from the county-level analysis, primarily because the goal was to analyze local food producers, but also because nursery products are extremely varied and difficult to categorize. In addition, nursery vendors are a relatively minor participant in farmers' markets. Producers were not included if more than 25% of their commodities were not able to be valued as a part of this process, in order not to bias the data towards small farms. Of 10,426 rows of data, 4,869 were categorized as various species of plants from nurseries, and thus were disregarded. Of the 5,557 rows of data remaining, 941 contained products that were too uncommon or too oddly measured to convert into value data (for example, bamboo and spirulina were not included because their value depends too highly on the use, and sprouts were not included because no CDFA or USDA

representative contacted could provide an approximate value of sprouts per pound). This resulted in 4,616 rows of analyzed production data from 162 producers certified to sell at farmers' markets in LA County.

Miscellaneous greens were categorized as "salad greens" and valued accordingly. Microgreens, delicata squash, and San Marzano tomatoes were valued by estimated prices per pound from an internet browser search, which primarily identified the average weight of the product. For example, one farmer listed delicata squash production by units of 4-packs sold. An internet search through nursery catalogues and the University of California, Davis data logs revealed the average weight of a delicata squash, which was then used to calculate the value of a 4-pack. All units were converted into pounds for ease of analysis. The total value of produce was then separated into categories that broadly represent farm size based on USDA census categories (USDA, 2019), and could be compared to trends in reported acreage from interviews.

*Assumptions*

In order to conduct a deeper discussion on the data analyzed in this research, we make a substantial assumption that producers represented by unrelated representatives at the farmers' markets are more likely to be less reliant on DTC sales than those represented by growers or close relatives. This assumption is based on the idea that producers using unrelated representatives must have the capital to be capable of affording the cost of paying said representative, while growers could be taking advantage of informal labor and self-exploitation in order to afford the marketing overhead (Galt et al., 2015). Furthermore, we assume that being physically present at the market shows that the grower has a higher level of investment in the success of market operations. These assumptions are analyzed more critically in the "Discussion" section below.

## Hypotheses

This research began with a mix of hypotheses and questions. To start with, the research simply sought to construct profiles of vendors selling at small farmers' markets (below the first quartile in number of vendors) and large ones (above the third quartile) in Los Angeles County, and the rules and procedures at play in these two size classes of markets. However, there were also a number of more focused inquiries about the types of vendors selling at these different groups of markets, and why this mix of vendors resulted—in other words, how much of the imagined image of "local food" is borne out, and what explains this outcome, as it relates to the producer of the food in question?

One hypothesis was the data would find that vendors participating in farmers' markets would be significantly different from the agricultural community in California as a whole, but that this finding would be mixed, with a wide range of participants, including large growers more representative of the current industrial agricultural model. As part of this hypothesis, we assumed that those markets falling below the first quartile of number of vendors participating would have either very small or very large-sized operations. The supposition was that mid-sized DTC producers are facing prohibitive costs in participating in these markets that cannot be counterbalanced by the minimal profit generated by small-scale farmers' markets. Thus participants would either be very small operations that use informal labor, self-exploitation, and relatively lax regulations to ease costs, or larger operators that can more easily swallow the costs, and might see markets more as an opportunity for advertisement than profit (Galt et al., 2015).

This hypothesis further assumed more opportunities for profit at larger farmers' markets, but also more restrictions on participation in the form of fees or consistency of product—leaving open the question of what sizes of farms are most likely to participate. If the markets above the third quartile in size are largely representative of mass-production farms, this may indicate that these costs or other costs in terms of time, labor, and investment in marketing

required to participate in and profit at these markets are too high to support the incubation of a new production model.

The second hypothesis centered around how vendors at the market were incorporating the market into their business model. In particular, questions about farms' degree of reliance on DTC sales, and their number of years in business, also bear on the extent to which alternative agricultural models are flourishing. If participants are largely reliant on DTC marketing, this may indicate that farmers' markets are providing an important environment for alternative agricultural production. On the other hand, if vendors at these markets mostly rely on other outlets for revenue, or view markets as only supplemental revenue, or if participants are largely transitory, this could indicate that markets are not providing substantial support for emerging and alternative agricultural vendors

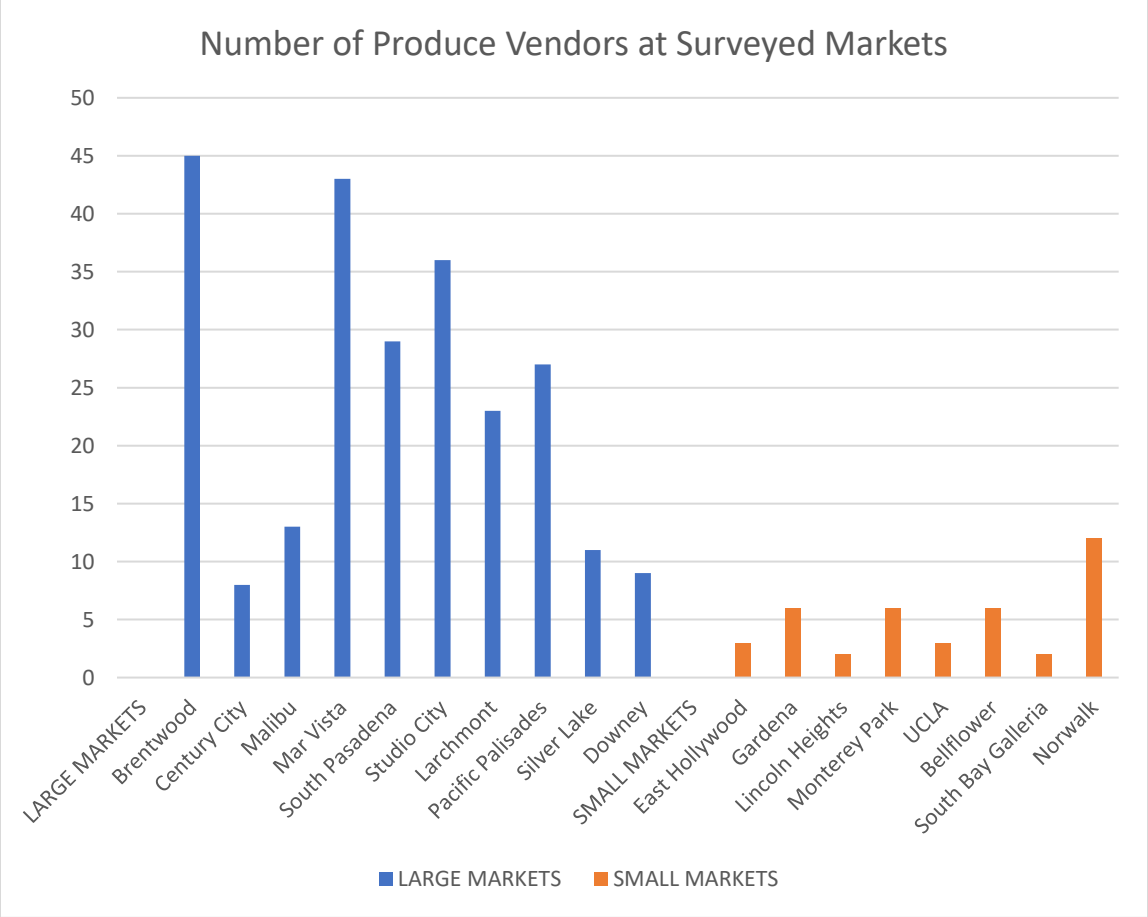
## Results: Market Profile

*Profile of Farmers' Markets*

As stated above, this research considered a selection of farmers' markets in Los Angeles County that represented both the "largest" quartile of markets (those with the highest number of quarterly stalls) and the "smallest" quartile (those with the lowest number of quarterly stalls). As shown in Figure 2 below, the resulting picture is somewhat more complicated. These data show that the size of the market does not necessarily correlate with the number of agricultural producers present. Farmers' markets do not always focus on farmers. Century City Farmers' Market, for example, was located in an office park and operated in the middle of the day on a weekday. A large portion of this market was prepared food, rather than produce. Silver Lake's market also seemed to focus on crafts and clothing rather than produce. Small markets, on the other hand, did tend to focus on produce, according to the interviewer's reports.

While in practice a "large" farmers' market did not necessarily result in a large number of produce vendors, the remainder of the stall count included crafts, prepared food, clothes and accessories, and more. Because of these other vendors, a large market with few agricultural producers may still represent a successful market, and thus a significantly higher amount of foot traffic than a small market. This foot traffic generates the opportunity for profit that exceeds potentially prohibitive costs, and thus still serves the purpose of categorizing large and small markets.

*Figure 2:Number of Produce Vendors Encountered at Each Surveyed Market*

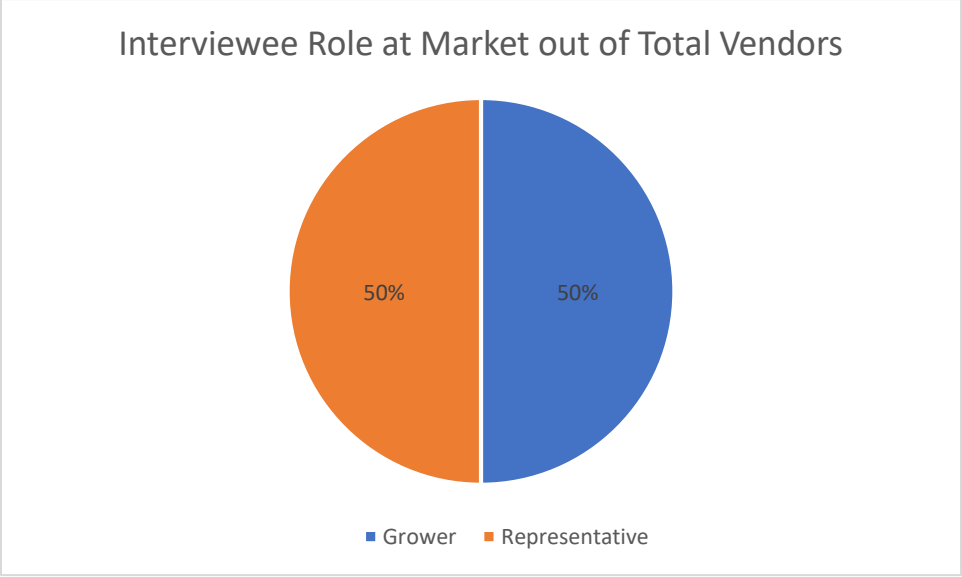



*Who are the Vendors at Farmers' Markets?*

As shown in Figure 3 below, interviewees were evenly split (72 growers, 73 representatives) between actual growers from the farm, and representatives that may or may not

have ever visited the farm or met the owners. This ratio is consistent across surveyed small and large markets. This is surprising, as it suggests that the size of the farm participating in farmers' markets is limited enough that in half the cases the owners and their family can attend the markets that they sell at.

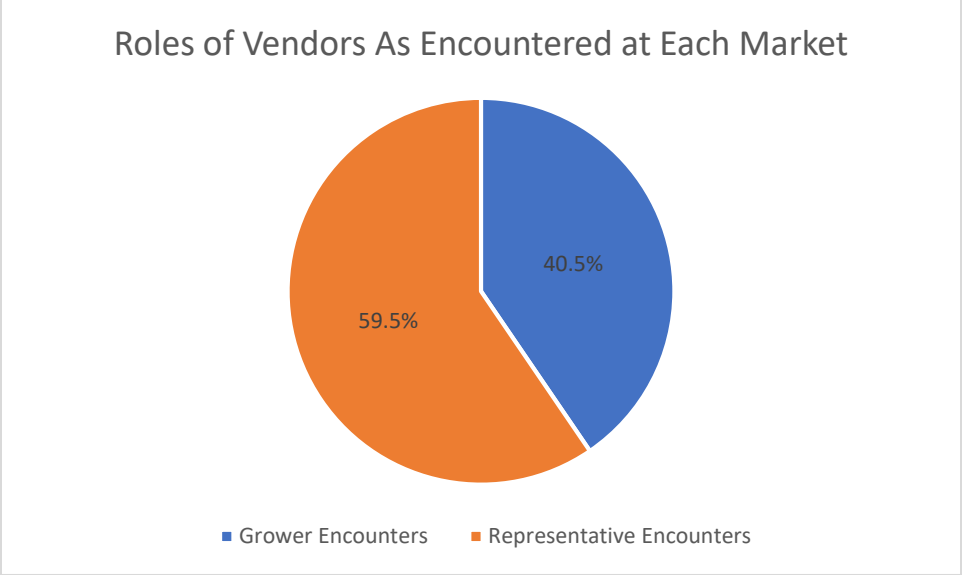
*Figure 3:Role of Vendors Surveyed*




Interestingly, this proportion does not carry when the data are adjusted for the number of *encounters*, rather than the number of total vendors. Encounters consider growers and representatives from the perspective of individual markets, in order to portray how likely an individual vendor at any given type of market is to be a grower or a representative.

This research recorded a total of 252 encounters, the results of which are shown in Figure 4 below. As shown, the ratio of growers to representatives has increased by almost ten percentage points. This ratio holds true for both small and large farmers' markets.

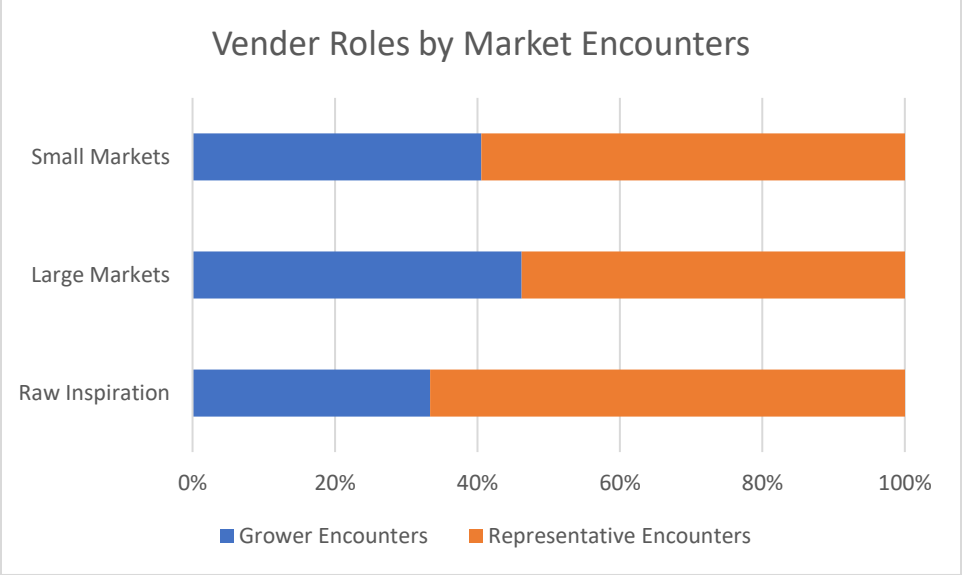
*Figure 4: Role of Vendors at each Individual Market Encounter*




This is interesting because if the total number of vendors is about evenly split between growers and representatives, yet representatives are encountered more frequently, this suggests that representatives are more likely to attend multiple markets. It is odd, then, that the ratio remains the same for both small and large markets. One would think that if there is a reason for representatives to attend more markets than growers, there would be a reason for them to favor a certain size of market. There is the possibility, however, of a confounding factor.

While the ratio of growers to representatives is steady for both small and large farmers' markets, there is a substantial change when large markets are separated by whether they were a Raw Inspiration market, as shown in Figure 5 below. As discussed below ("How Did Producers Use Farmers' Markets?"), Raw Inspiration markets are particularly easy to apply to multiple times, and this could explain some of the repetition of vendors in large markets, as Raw Inspiration markets were only found within the large market sample.

*Figure 5: Percent of Vendor Roles Encountered at Small, Large, and Raw Inspiration Markets*




As these data demonstrate, representatives were encountered most frequently at Raw Inspiration markets. This has skewed the large market data, which with Raw Inspiration markets accounted for now show a higher percentage or growers than other market types.

Many interviewees who represented growers, rather than were growers themselves, described situations where they had little to no contact with the farm owner, though this question was not asked consistently. This meant that either the vendor would pick produce up at the farm, at a nearby storage shed, or a truck would drive to the market and drop the produce off for them to then sell.

Most vendors were only encountered at one market. However, a few vendors were encountered in as many as half of the eighteen markets surveyed. As shown in Figure 6 below, most of the participation across markets occurred across large markets. For example, this graph shows that just over 80 percent of vendors encountered at small markets were not encountered at any other market. It is important to note, however, that of the 18 markets surveyed, four were Raw Inspiration markets, all of which were from the large market selection. Because it is particularly easy to apply to more than one of these markets, for comparison Figure 7 below

shows vendor at all markets adjusted for Raw Inspiration markets by only counting a vendor's attendance at any of the surveyed Raw Inspiration markets once. By adjusting for Raw Inspiration repetition, the graph looks largely the same, but with the maximum number of encounters reduced to six, rather than nine with Raw Inspiration.

*Figure 6: Percent of Interviewed Vendors Encountered at "x" Number of Markets*

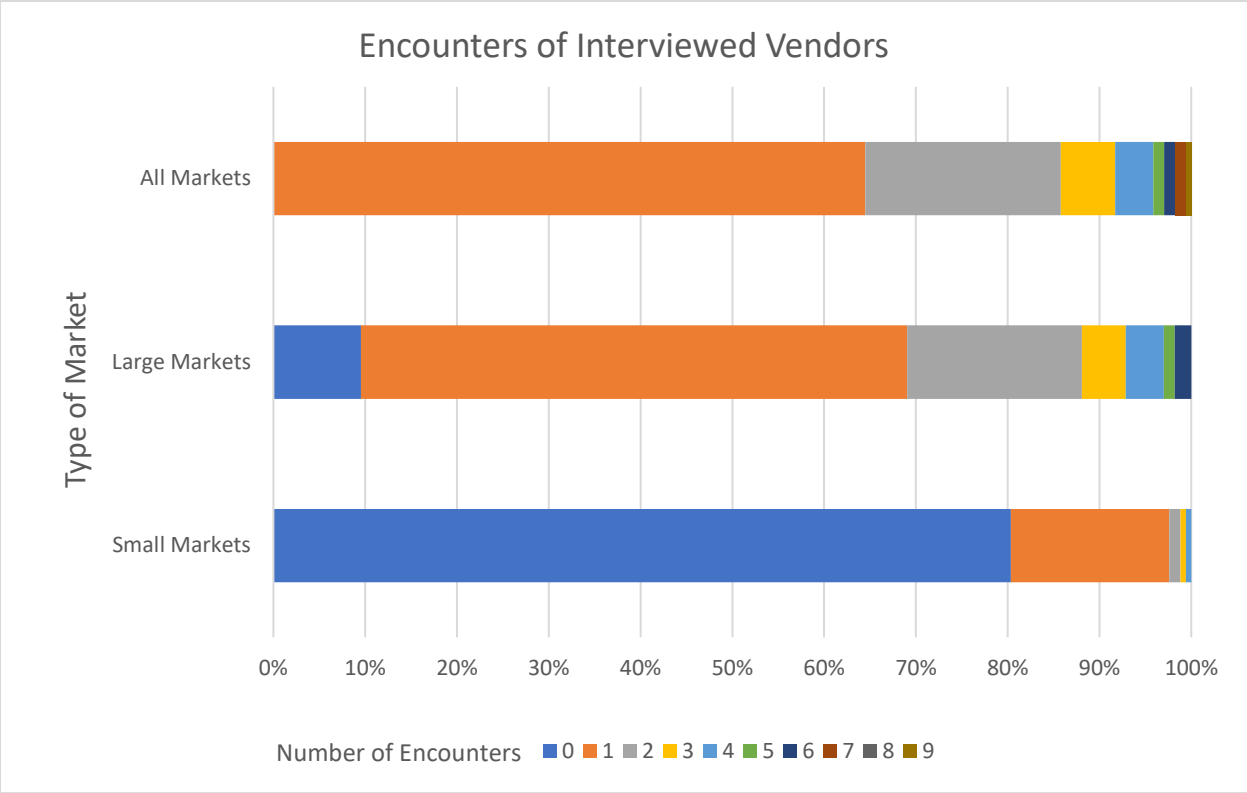
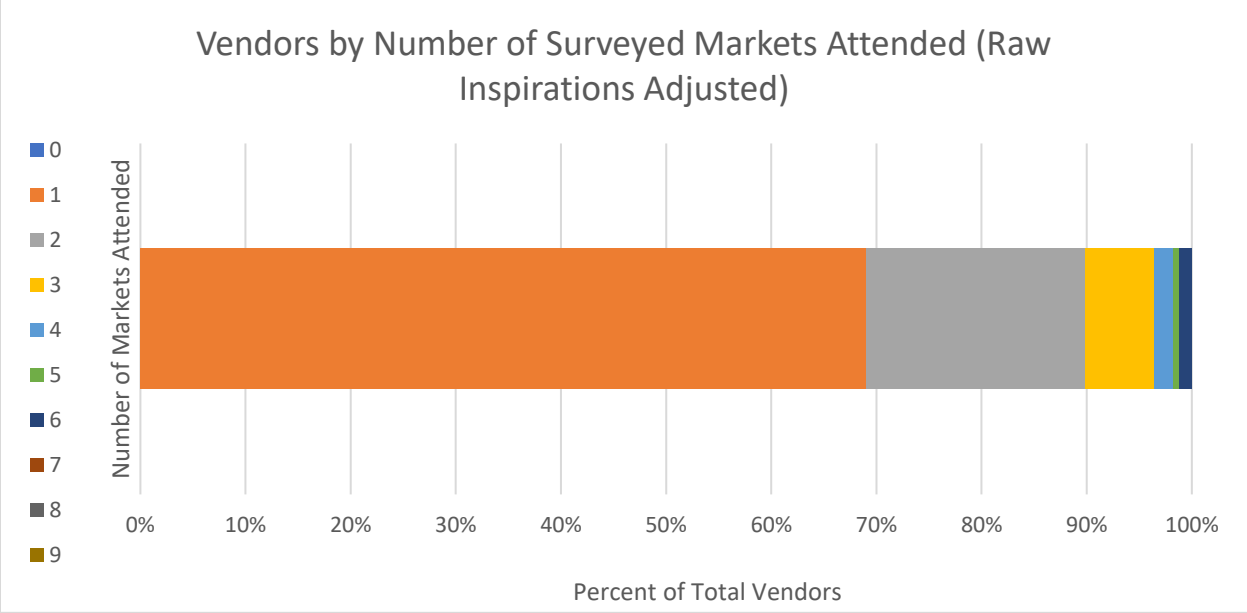
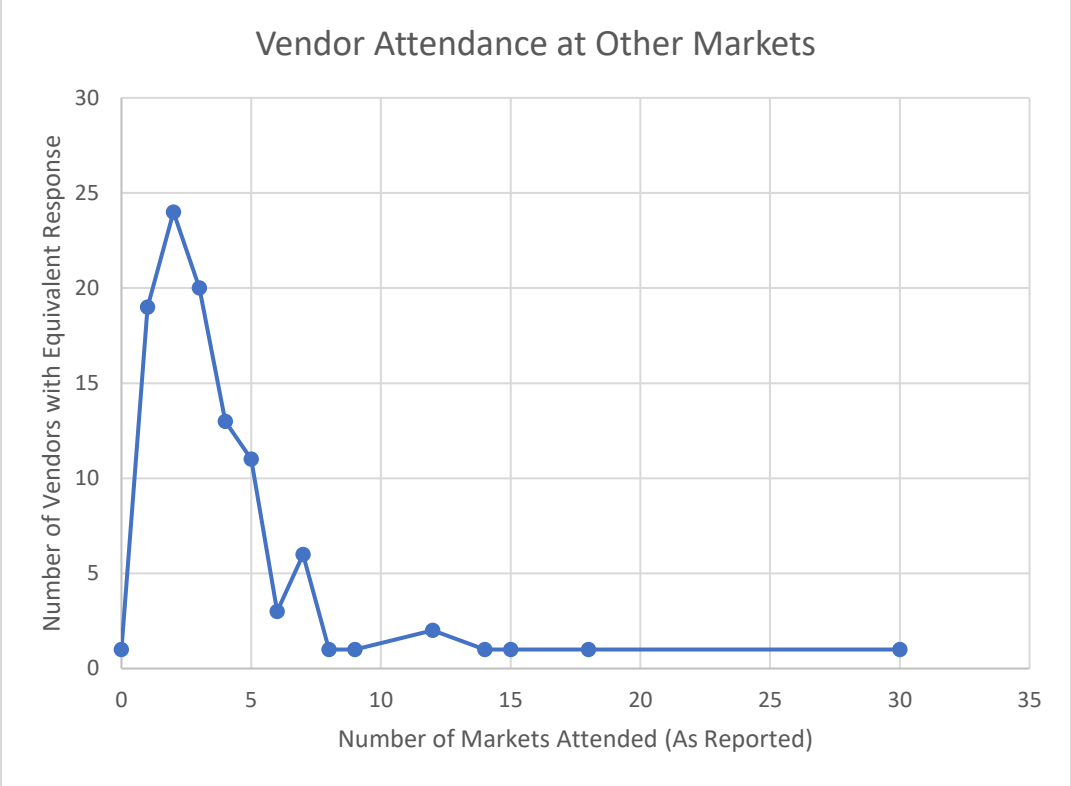


*Figure 7: Percent of Vendors Encountered at "x" Number of Markets Adjusted for Participation in Raw Inspirations Markets*




With Raw Inspiration adjusted for however, the sample size only includes encounters at eight small markets, six large markets, and four Raw Inspiration markets. This is a very small sample from which to draw conclusions about wider trends, so it is helpful to compare these data with qualitative responses to the vendors themselves regarding the number of markets they visit per week. Figure 8 below shows the results of 105 responses to this question. The number of other markets attended is likely underrepresented here, because many representatives responded with only the other markets that they personally represent the producer at, rather than all markets that the producer sells produce at. Some interviewees also could not remember all of the markets that they attend offhand, and so listed those that they could think of. As it is, almost two-thirds of respondents reported five or fewer other markets attended. The most common response (from 24 vendors) was two other markets.

*Figure 8: Number of Vendors Reporting Farm Participation in "x" Number of Other Farmers' Markets*




*How did Farmers' Market Vendors Compare to Local Food Ideals?*

As mentioned briefly in "Background and Conceptual Framework" above, most vendors recorded at the selected markets did not originate hyper-locally. This is a difficult statistic to measure accurately over a large sample size and with little data publicly available, particularly when many respondents to interviews knew very little about the originating farm. Vendors are required, however, to list the farm name and county of origin on a banner clearly visible in their booth (ACWS, 2017). This rule is not followed strictly (particularly on rainy days), but the interviewer was able to collect county-level data for 137 of the 149 vendors recorded. A few banners listed more than one county, in which case the first one was used for analysis for the sake of consistency.

Table 2 below depicts the results of this analysis, including total vendors counted in Los Angeles, counties bordering Los Angeles, and other counties. The table also the percentage of

vendors in each geographic designation, the percentage accounting for some vendors appearing multiple times in the market census (All Market Encounters), and percentages of encounters at both large and small markets. For the purpose of this research, a market "encounter" counts a vendor each time they appeared at a market, and thus counts some vendors multiple times. This allows us to generate a picture of what individual markets look like, rather than only considering vendors on their own.

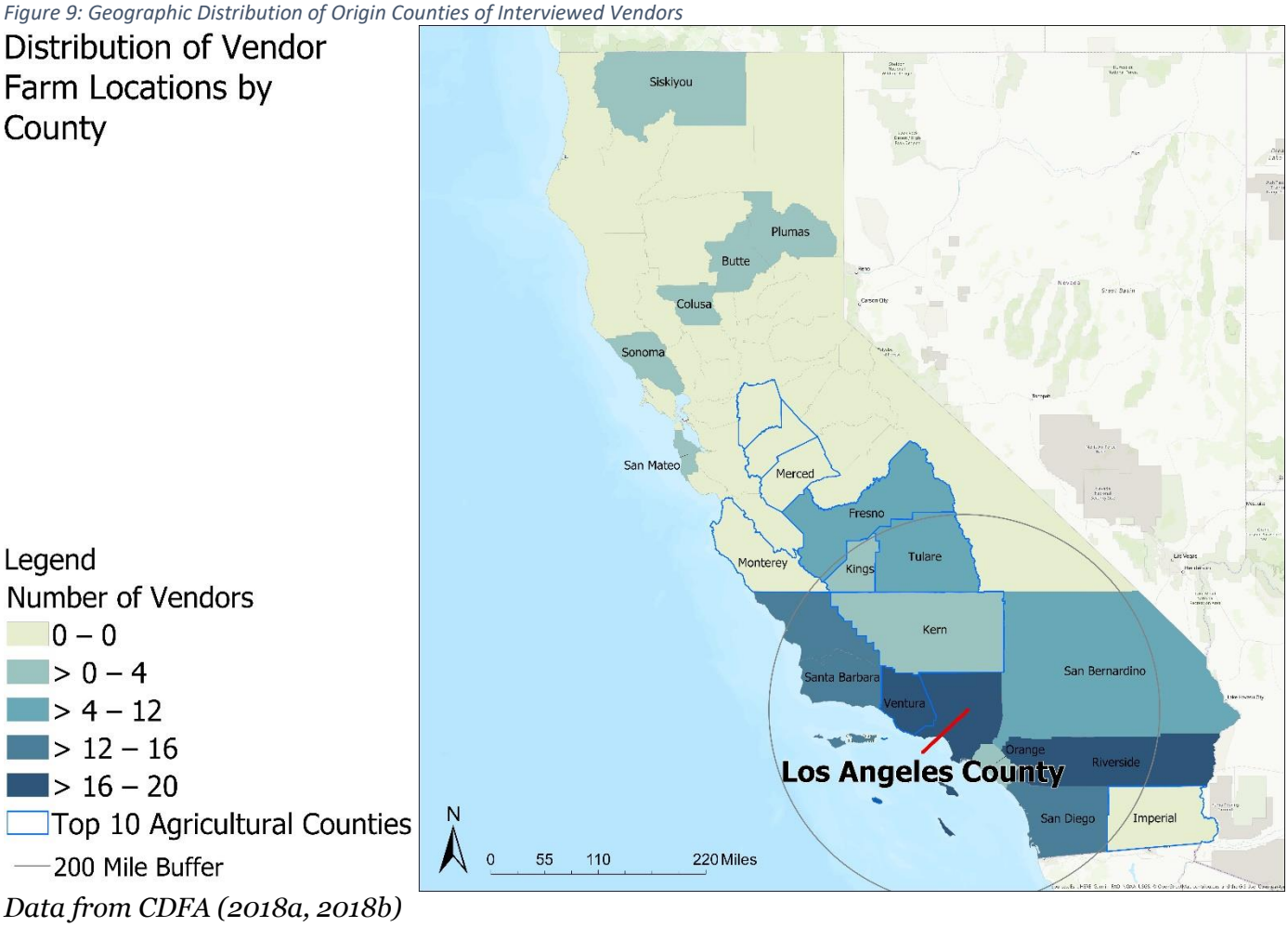
*Table 2: Estimated Origin Counties of Vendors Surveyed*

| County | Vendors | Vendors % | All Market Encounters | Large Markets | Small Markets |
|---|---|---|---|---|---|
| Los Angeles | 18 | 13.1% | 11.8% | 11.7% | 12.1% |
| Border County | 35 | 25.6% | 31.2% | 31.2% | 30.3% |
| Other | 84 | 61.3% | 57.0% | 57.1% | 57.6% |
| Sum | 137 | | | | |

*Some percentages may add to less than 100 percent due to rounding

As shown in this table, vendors that could conceivably be called "hyper-local", in this case represented by all vendors originating from Los Angeles County, comprised only just over 13 percent of all vendors, and the percentage decreases over all vendor encounters. They were encountered slightly more often at small markets than large markets, but by a difference of less than half of a percent. Even when expanding to regional, in this case both Los Angeles and counties bordering Los Angeles, these vendors account for just over a third of all vendors recorded, though they do comprise about 43 percent of vendor encounters across all markets. Interestingly, the only category that does consistently better when converted from total vendors to total encounters is border counties specifically, suggesting that those vendors are more likely to be encountered at multiple markets. Figure 9 below shows the geographic distribution of all vendors recorded across California.

*Figure 9: Geographic Distribution of Origin Counties of Interviewed Vendors*




*Data from CDFA (2018a, 2018b)*

Most vendors, unsurprisingly given transportation costs, originate in Southern California. There are, however, a few from farther away – a total of seven vendors originated from six counties that do not intersect at all with the Food Policy Council's 200 mile radius, though all seven vendors were not encountered at small markets (see Figure 10 and Figure 11 below), and four of these vendors were cattle ranches. Six of the counties highlighted are in the top ten counties in agricultural production in the state in terms of value in 2017 (CDFA, 2018a). Kern and Ventura counties are included in the counties bordering Los Angeles, and are also among the top ten highest producing counties. Kern, in fact, was the top producer in the state, though surprisingly few vendors originate there.

Figure 10 and Figure 11 below describe the difference in vendor encounters at large and small markets. The only vendors for small markets outside of the Food Policy Council's 200 mile radius came from Fresno, though this is using a 200 mile radius from the center of Los Angeles County (Figure 10). For markets in the northern areas of Los Angeles, much of Fresno could be well within a 200 mile radius.

*Figure 10: Geographic Distribution of Origin Counties of Vendor Encounters at Small Markets*

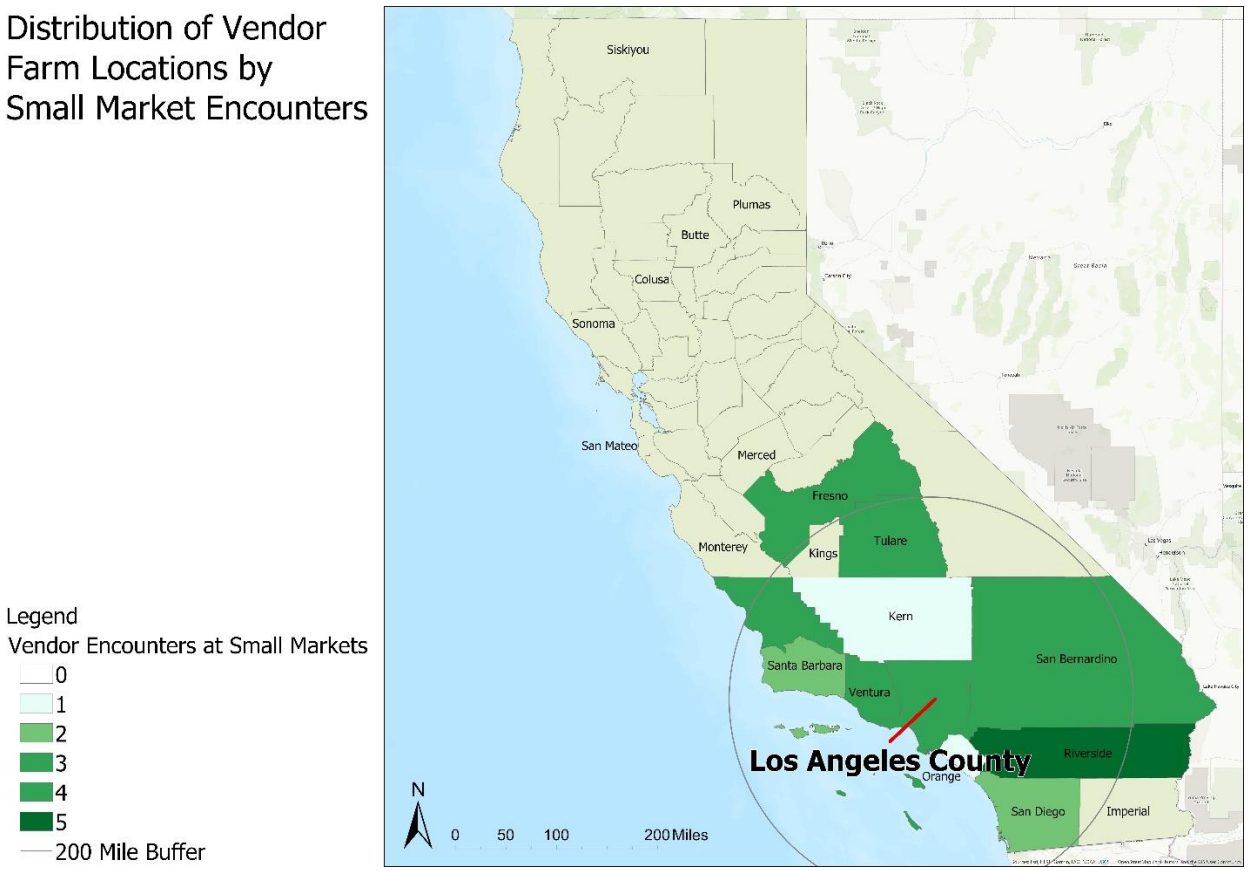
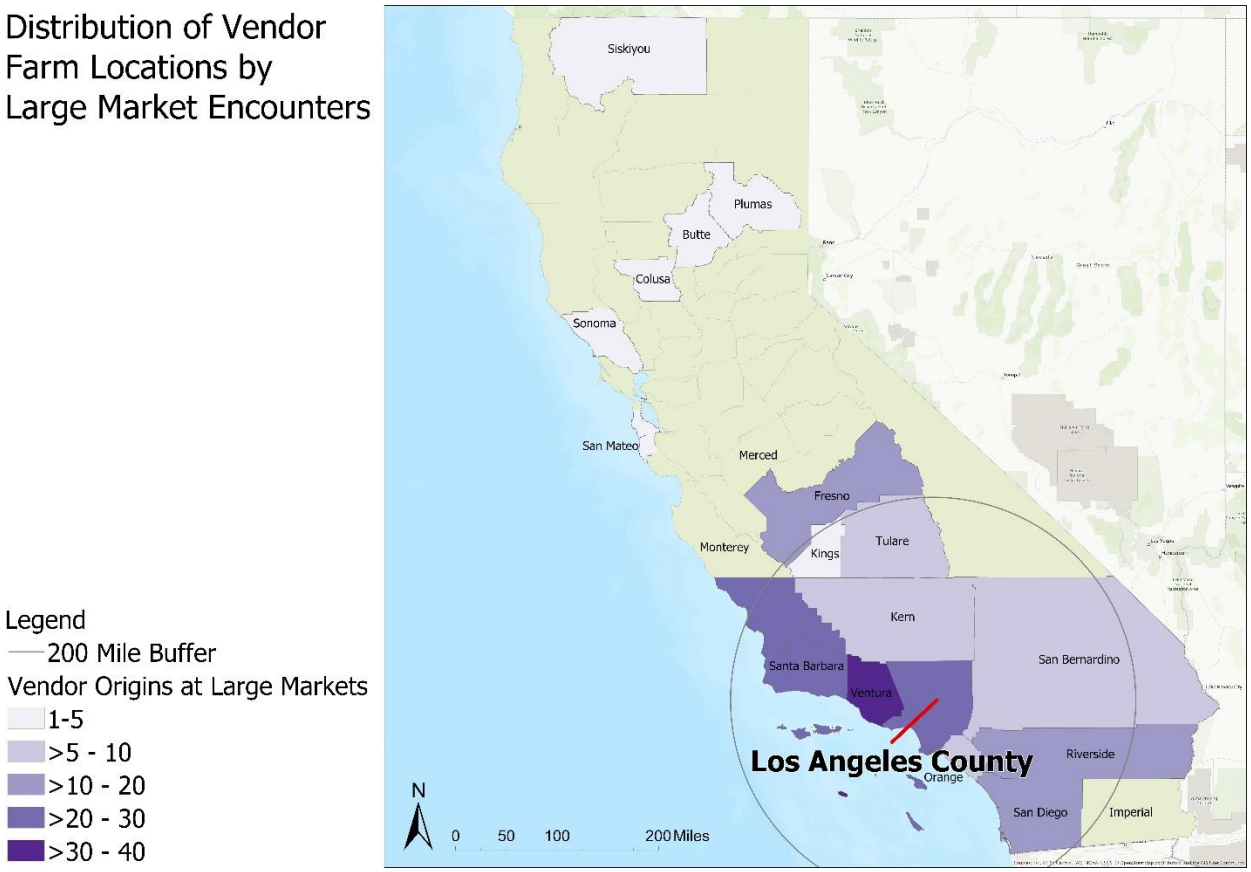



*Figure 11: Geographic Distribution of Origin Counties of Vendor Encounters at Large Markets*

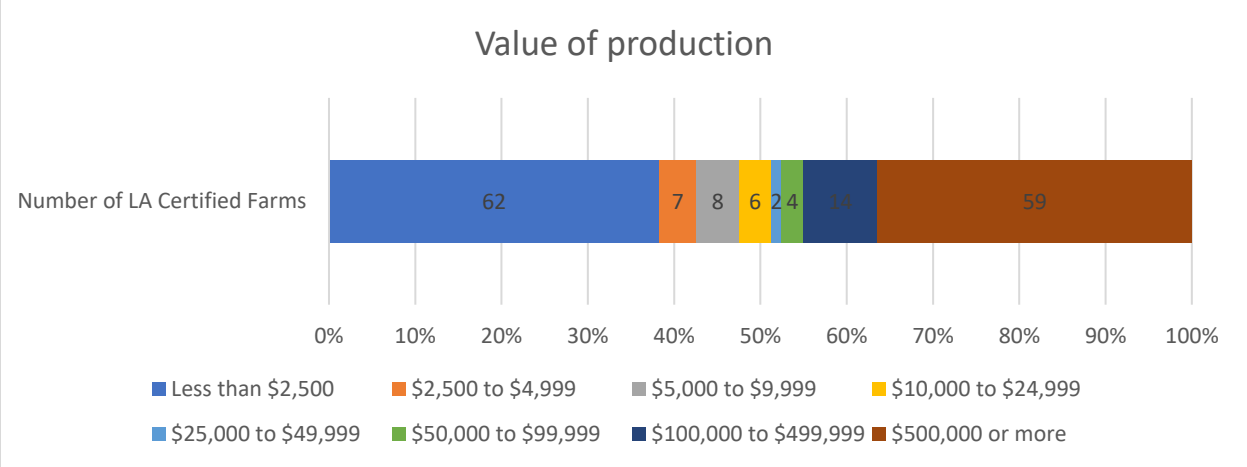


This information confirms the hypothesis that the geographic concept of "local" as it applies to farmers' markets is more nuanced than the phrase might suggest. If Southern California is considered the region that counts as "local," then most vendors surveyed did indeed fit that description. Under this definition, however, "local" includes a large portion of the value of agricultural products in the nation, given that it includes the top cash crop counties in the top cash crop state in the country, rending the concept functionally useless for the purposes of this research. To get at other dimensions of the comparison of the surveyed vendors with typical other producers, we need to look beyond location to a set of other farmer characteristics. This is discussed in more detail below.

*How did Farmers' Market Vendors Compare to California Producers?*

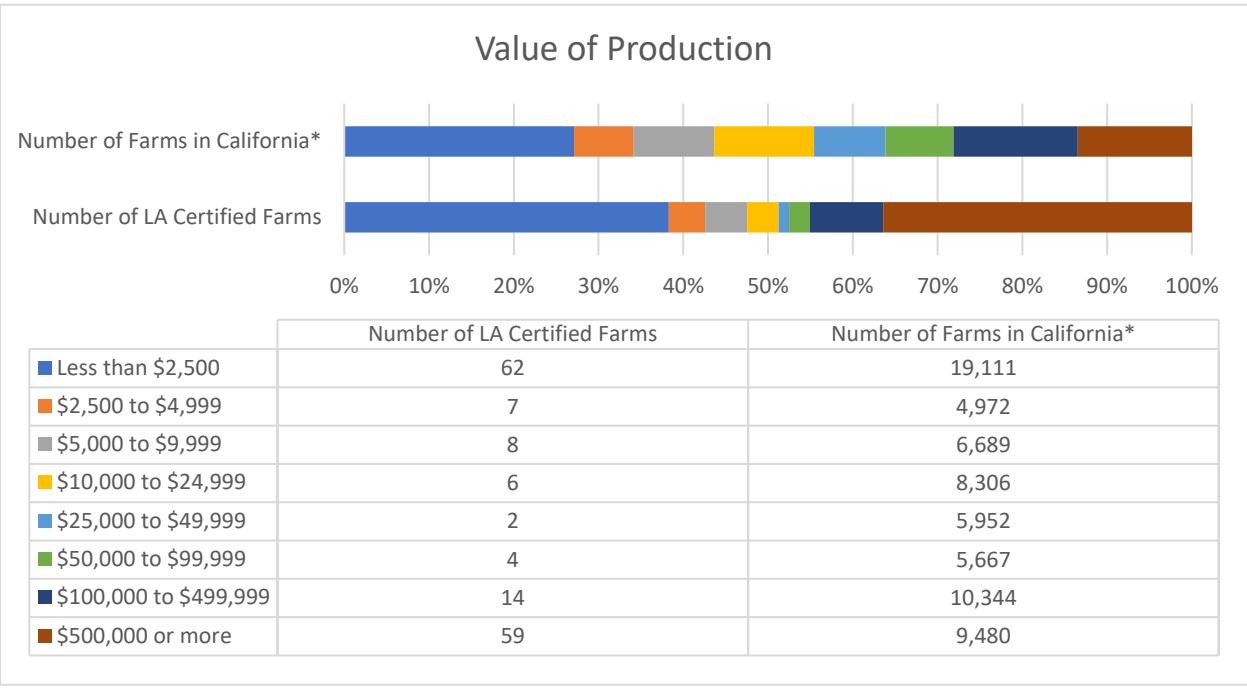
In order to get an idea of the size of operations present at farmers' markets, the interviewer included questions regarding the acreage of the farm. The results, however, were inconsistent and biased towards farms represented by growers at the market (who had more knowledge of farm operations). In order to balance this with a more comprehensive data set, we analyzed data from a public information request to the Los Angeles Agricultural Commissioner's office (ACWM, 2019a). This included Certified Producer's Certificates for all producers authorized to sell at certified farmers' markets within Los Angeles County, as of January 2019. The certificates provided the type and amount of produce that the producer or authorized producers could sell at a certified farmers' market. By valuing this data according to the processes listed above ("Data & Methods"), we generated an estimate of the value of produce sold by individual vendors who sell at farmers' markets in Los Angeles County, as shown in Figure 12 below.

*Figure 12: Value of total annual production for Los Angeles certified producer farms*




As shown in Figure 13 below, farms certified to sell in Los Angeles were much more polarized in the range of total production than the average farm in California (according to the USDA Census of Agriculture for 2017). While the markets surveyed attracted a larger proportion of small-scale producers, they also attract a similar proportion of large-scale producers. This suggests that the variety of vendors benefiting from DTC marketing may be polarized.

*Figure 13: Value of total annual production for LA certified producer farms and statewide*




| | Number of LA Certified Farms | Number of Farms in California* |
|---|---|---|
| Less than $2,500 | 62 | 19,111 |
| $2,500 to $4,999 | 7 | 4,972 |
| $5,000 to $9,999 | 8 | 6,689 |
| $10,000 to $24,999 | 6 | 8,306 |
| $25,000 to $49,999 | 2 | 5,952 |
| $50,000 to $99,999 | 4 | 5,667 |
| $100,000 to $499,999 | 14 | 10,344 |
| $500,000 or more | 59 | 9,480 |

* "Farms by value of sales" USDA California Census of Agriculture 2017

The value of production, however, is only one measure of farm operations. Acreage provides a different perspective. For acreage we considered only reported data supplemented with some additional online research, and then compared that to USDA survey data on California as a whole. There was no data available on a wider sample of the acreage of produce vendors in Los Angeles. Figure 14 below illustrates the self-reported size in acres of the source farm, according to interview materials, with the box encompassing the 25$^{th}$, 50$^{th}$, and 75$^{th}$ percentiles of the collected acreage data, and with an "x" marking the mean. These numbers are estimates, though some have been supplemented with additional verification through online research. Responses were available for 89 out of the 149 surveys. These data provide nuance to the value of produce data, showing that, given that the average farm size in California was 328 acres in 2018 (CDFA, 2018a), while the markets showed many small-scale vendors as well as many very large-scale vendors, these data are skewed towards small-scale vendors, with significant outliers on the larger end of production, even after excluding ranches and livestock farms. The average farm size according to these data is a mere 85 acres.

*Figure 14: Distribution of Interviewee* Reported Farm Size (Acres)*


** Livestock ranches not included*

As stated above, answers regarding acreage was skewed towards growers, as they were more likely to know the acreage to the producing farm. As shown in Table 3 below, just under a third of respondents were representatives. However, those representatives that did respond provided a much higher average acreage than growers.

*Table 3: Reported Acreage by Interviewee Group*

| | Responses | Total Acres | Average Acres |
|---|---|---|---|
| **Grower** | 62 | 3659.37 | 59.02 |
| **Representative** | 27 | 3939.50 | 145.91 |

While acreage data was only collected once for each vendor, and vendors were sometimes encountered in both large and small markets, we were able to estimate an average acreage for vendors in both large and small markets by multiplying the reported acreage by the number of encounters at each sized market, and then creating an average from the total number of encounters of vendors at that size. The results are detailed in Table 4 below. As the table shows, small markets did tend to have a lower average acreage, though large markets had a wider range of acreages, including ones smaller than those encountered at small markets.

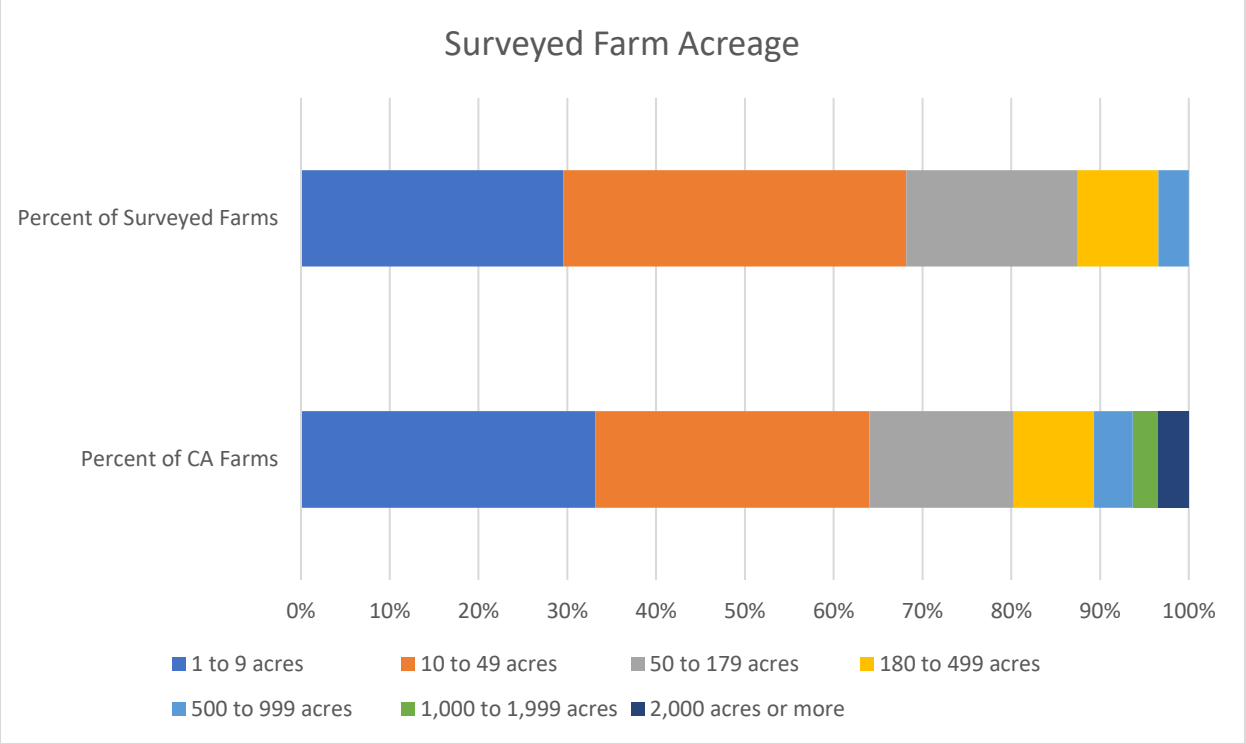
*Table 4: Average Farm Acreage at Different Sized Markets*

| | Small Markets | Large Markets | All Markets |
|---|---|---|---|
| **Average** | 99.6 | 216.8 | 212.6 |
| **Maximum*** | 600 | 860 | 860 |
| **Minimum*** | 8 | 1/50 | 1/50 |

**Not including ranches, not adjusted for encounters*

Figure 15 below provides a more compatible perspective of California farms and the farms surveyed (USDA, 2019). Aside from the lack of farms over 1,000 acres, most of the category sizes are rather similar. This suggests that, similar to interview data, the average farm size in California is skewed by a few very large outliers. The median size of the farms sampled was 25 acres, squarely within the California median of between 10 and 49 acres.

*Figure 15: Self-Reported Acreage of Surveyed Farms versus California Farm Acreage*




This provides a more complex picture of the role that farmers' markets play in the local food movement. The value of crops authorized to be sold in Los Angeles farmers' markets demonstrates a very polarized range of vendors compared to California in general. Yet the acreage of the farms surveyed was largely similar to the size of farms across California, with the important difference that there were none above 1,000 acres. If the goal of the local food movement is specifically to exclude those large farms, this would suggest that the markets are fulfilling their purpose.

*How Did Producers Use Farmers' Markets?*

In order to better fill out the picture of what kind of producers are present at markets, it can be useful to consider what is attracting vendors to the market, in order to then deduce what kind of producer would benefit from what farmers' markets are providing. For example, if vendors cite scale as a barrier to wholesale that pushes them in to DTC marketing, this would

suggest that farmers' markets are acting as a kind of incubator for new and small-scale producers. If loose regulations are the main draw, this could be somewhat more beneficial to new and small-scale businesses that do not have the benefits of established physical and political infrastructure (such as storage facilities or robust county agricultural programs). This section outlines the responses to questions that the interviewer posed to the 72 vendors that were identified as "growers" regarding their rationale for attending farmers' markets. Of that total number, 37 gave useable answers.

*Table 5: Grower Rationale for Attending Farmers' Markets out of 37 responses*

| Rationale | Percent of Respondents |
|---|---|
| **Too small for others** | 21.6% |
| **Higher price** | 18.9% |
| **Social** | 16.2% |
| **Supplemental Revenue** | 10.8% |
| **Steady revenue** | 8.1% |
| **Started business at markets and stayed** | 8.1% |
| **Market research** | 8.1% |
| **Independence** | 5.4% |
| **Personal preference (sentimental)** | 5.4% |

Responses were generally too varied to systematically analyze, but the most common response was that the producer did not have the scale necessary to sell wholesale, and so farmers' markets was the next major option available. The next highest response was that the vendor was taking advantage of the higher prices that the market offered, either from the benefits of cutting out the middleman, or from the higher prices made possible by selling in Los Angeles specifically. This mixed with other more personal reasons for wanting to be independent from wholesalers and aggregators, such as wanting to be personally involved in the process and "get back to the land", or enjoying being able to set their own hours. Vendors that emphasized the importance of "steady revenue" suggested that wholesale markets were often

choosy about produce, and were not on-time or dependable with payments. Some vendors simply needed the weekly revenue, as opposed to monthly deliveries to wholesalers. Additionally, some vendors participated in both wholesale markets and farmers' markets, but the DTC sales helped to supplement wholesale revenue that was too little or too infrequent to cover expenses. Two vendors described their business operations as a largely based on being a grower-packer-shipper, but they used farmers' markets for some needed extra income. One vendor said that markets were good for hearing directly from customers – gathering information about market trends. One vendor commented that markets provided good advertising for new wholesale or restaurant customers, though another countered that markets were not good avenues for advertising. One of these mentioned that they enjoy going to farmers' markets as a social event.

Of the 18 markets surveyed, four were part of a company called 'California Certified Farmers Markets Inc.", with the markets managed through the non-profit Raw Inspiration. Three growers stated that they only attend Raw Inspiration markets. One grower specified that the application process for one Raw Inspiration market was just as easy as multiple, and that consolidated application process formed their rationale for choice of market. The interviewer confirmed this by investigating the online application, which simply asked applicants to check off markets that they would like to be considered for.

Of the vendors surveyed, 51 were able to respond to questions regarding the amount of their income that was generated by farmers' markets. Generally these answers were vague, with the exception of when farmers' markets generated all of the grower's revenue. The results of these answers are shown below in Table 6.

Table 7 below details some of the most common responses to questions about the grower's sources of revenue outside of farmers' markets. These results are out of 86 total responses, and include duplicate data where, for example, a vendor sells to both restaurants,

and CSAs. Not included in the percentages below include some less common responses such as deliveries, donations, u-pick operations, farm tours, garden shows, weddings, catering, co-op sales, CBD sales, on-farm stands, leasing farm land, sales from the owner's own grocery store, and pollination services.

*Table 6: Vendor Percentage of Income Originating from Farmers' Markets (Self-Reported)*

| Market Percent of Total Revenue | Number of Responses |
|---|---|
| **< 50%** | 7.8% |
| **50%** | 4.0% |
| **50.1% - 99.9%** | 5.9% |
| **100%** | 60.8% |
| **"Most"** | 5.9% |
| **"Little"** | 15.7% |

*Table 7: Vendor Sources of Income (Out of 86 Responses)*

| Markets Only | Wholesale | Restaurant | Stores | CSA | Website | Aggregators |
|---|---|---|---|---|---|---|
| 36.1% | 19.8% | 14.0% | 10.5% | 8.1% | 8.1% | 7.0% |

In addition to vendor goals and preferences, the goals and management styles of the market managers can strongly influence the makeup of the market's vendors. According to many of the market managers included in this survey, vendors are almost exclusively selected by whether the products they supply compete with existing vendors (particularly for small markets that are still large enough to have an established vendor base). Very large markets assume that competition will happen anyway, and selection for vendors mostly occurs through a waitlist, with priority given to vendors with new or differentiated products. In this instance, the focus is more on the customer (and the success of the market) than on the wellbeing or loyalty of the producers. When asked whether there were any other measures used to select between vendors, market managers frequently responded only with restrictions that the vendor be certified by the

CDFA and follow state health requirements. This attitude towards competition is telling in some ways, and is discussed further in the "Discussion" section below.

## Limitations

This research involves a case study of the Los Angeles county region and applies the findings to the broader California context. This survey area does not account for differences between the rural and urban experience of farmers' markets, and does not account for differences in distance from source farms, or the type of farms nearby. This sample is also intentionally not representative of all farmers' markets in Los Angeles County. By surveying only large and small markets, this research provides a richer context for analysis with the data collected. However, in the process no middle-sized markets were included.

Half of the vendors interviewed identified themselves as representatives of the grower, rather than the growers themselves. Because many representatives have little information about the reviewer, in many cases accurate information is difficult to impossible to obtain from an interview. This also led to some skew in the collected data towards those producers represented by the growers, who were able to provide more detailed information.

## Discussion

The data gathered and analyzed in this research was intended to answer two fundamental questions about the current make-up of farmers' markets in Los Angeles:

1. Are the vendors represented at farmers' markets significantly different from California agricultural producers in general?
2. How are vendors at farmers' markets approaching farmers' markets as part of their overall business model?

The section below takes this data and shows how it begins to provide a basis to answer these questions. We begin by systematically discussing the research findings, and conclude by applying the results to the research questions.

*Who are the Vendors at Farmers' Markets?*

If the 200 mile "food shed" recommended by the LA Food Policy Council is considered the ideal for local food in Los Angeles, most of the vendors did seem to fit that profile. However, it is important to note that a 200 mile radius also includes some of the top regions in agricultural production in the country. Because of this, a purely geographic definition of "local" results in a sample that is not significantly different from traditional wholesale produce. However, the consistency of the ratio of growers to representatives at large and small markets, as well as the strong representation of growers was surprising. If we can assume that the physical presence of the grower at the farmers' market in question represents a major investment in farmers' markets, this finding seemed to indicate a strong commitment to DTC marketing on the part of at least that half of vendors. This makes the finding regarding the overrepresentation of representatives at Raw Inspiration markets troubling, particularly given their prevalence and size in Los Angeles, based on their prevalence in this research sample, and their status in the top quartile of farmers' markets by size in the county.

This research demonstrates that farmer's markets in Los Angeles County benefit a more polarized range of producers than is typical for farms in California. There is significant nuance in this differentiation, particularly as producers seem to have a much lower acreage than is typical in the state. However, something in the farmers' market model does not seem to be beneficial to mid-scale producers. It is possible that this is a reflection of the sampling method that did not include mid-sized markets, but the consistency of this finding across large and small markets suggests that it is a wider trend. This suggests that markets may not be effective at supporting small-scale producers as they increase in size. This does not seem to extend to the

acreage of the farm, which closely reflects that of California as a whole. It is important to note, however, that the markets do seem to be providing supplemental revenue to producers that would otherwise struggle selling only through wholesale, as discussed in more detail below (*How did Farmers' Market Vendors Compare to California Producers?*).

The confounding factor of Raw Inspiration markets is revealing in many ways. If we assume that booths manned by producer representatives rather than the growers themselves are more likely to indicate a larger farm less invested in the DTC market (an assumption supported by the persistent lack of knowledge representatives had of any details regarding the farm), then it is interesting that these Raw Inspiration markets had a particularly high percentage of representatives, compared to growers. Interviews with market managers revealed a consistent lack of concern for the detriments of competition on individual vendors – a stark contrast to small farmers' markets, and particularly to the large, independent farmers' markets surveyed (such as South Pasadena, Mar Vista, and Studio City), which acknowledged that they did not discourage competition, but displayed more concern for retaining long-term vendors. Raw Inspiration markets, anecdotally, were more concerned with the satisfaction of customers than that of vendors. Though there is little concrete data to support this conclusion in this research, based on conversations with managers and vendors, Raw Inspiration markets tend to be run more like a business, while independent and small markets (often run by cities, such as Bellflower, or by nonprofit community organizations, such as Studio City, Norwalk, or East Hollywood) are more likely to be managed like community services or passion projects. The prevalence of Raw Inspiration-type farmers' market organizations in this sample suggests that this could be an intriguing and important avenue for future research.

*How did Farmers' Market Vendors Compare to Local Food Ideals?*

The use of representatives provides a particularly interesting avenue for future research, especially as a representative creates a layer of distance between the farm and the market –

allowing large producers more room to participate. It is interesting that few representatives had ever seen the farm itself, and instead received the produce through an intermediary. A hypothetical rationale for this would be that vendors are acting in the role of a kind of independent contractor – receiving extra produce from local storage sheds, and reselling in the market. This would provide extra revenue for the producer with minimal extra administrative work or labor costs. Legally, however, this would require that the vendors be listed on the certificates of the certified producer as a designated representative, suggesting that the number of these subcontractors a farm could work with would be limited. Based on the CDFA Application for Certified Producer's Certificate (CDFA, 2019), only two additional people can be certified to sell for the grower. This would seem to limit the scale of farmers' market operations, making the overhead costs more substantial. It is likely then, that either the growers are experiencing negligible overhead for farmers' market operations, or they are allowing multiple representatives through other means. The potential impact of this situation provides an intriguing avenue for further research.

*How did Farmers' Market Vendors Compare to California Producers?*

It is interesting that the value of production for farmers' market vendors in Los Angeles was polarized compared to production in California in general. Given the general trend in California of an increasing number of large farms (those with over $250,000 in sales) and a decreasing number of very small farms (those with $1,000 - $9,999 in sales) (CDFA, 2018a), the prevalence of those very small farms at farmers' markets in Los Angeles suggests that the markets are providing a refuge for California farms that are otherwise being pushed out of the market.

The fact that the production value data tells a different story from the acreage data suggests that the composition of vendors is more complex than anticipated. A few explanations include either that low-value production farms at markets use more land than California farms

in general, or that high-value production farms at markets use less land than California farms in general. It is also possible that the data gathered via interviews was biased either because of the exclusion of mid-sized markets from the sample, or from the bias towards growers who were able to provide better data on the subject. Assuming that the data are, in fact, representative of larger patterns, they tell a much less polarized story than the production value data. If the acreage data were to more closely reflect the production data, we would expect to see many more farms over 1,000 acres, as well as significantly more farms under 10 acres. This possibly indicates an opportunity for markets to provide further support to very small farms.

Another possibility is that production value is simply a better indicator for participation in farmers' markets. If acreage plays little role in the marketing strategies of agricultural producers, we would expect the acreage of market participants to be similar to that of California overall. Mid-sized agricultural producers generally have trouble competing both in DTC marketing and in the wholesale market, because they do not have the economies of scale to compete on price, nor do they have the diversity of product or luxury of self-exploitation that could make them competitive at farmers' markets (Diamond, et al., 2012) (King, Hand, and Gomez 2014). If that is what the data is representing, then it suggests that markets provide opportunities for both large and small vendors, but little for the struggling mid-sized farmers.

The absence of farms over 1,000 acres in the market sample, on the other hand, is encouraging with regards to the role these markets can play in supporting structural agricultural change. Given the trend in California towards increasing numbers of very large farms, this would suggest that farmers' markets are supporting an alternate model from the general agricultural trend in California.

*How did Producers Use Farmers' Markets?*

It is clear from the variety of responses in, for example, Table 6 or Table 7 above, that vendors are using farmers' markets in radically different ways in relation to their larger

business. For example, some vendors mentioned that they prefer to sell at farmers' markets because they pay weekly, as opposed to aggregators or wholesale that tend to pay infrequently or late. For some vendors the primary draw seemed to be the people that the market gathered together. The opportunity to interact with customers provided valuable market trend data, or networking for other parts of their business (such as with chefs or wholesalers). For the 16 percent of respondents who specified a social reason for attending the market, interaction with customers and other vendors was in itself a primary draw. One couple interviewed specified that they were in the process of retiring, and largely still attended the market for social opportunities.

The fact that the most common response when vendors were asked why they participate in farmers' markets was that their operations were too small for other markets like wholesale, supports the idea that the markets are providing a lifeline to smaller farms. While much of this research seems to demonstrate that farmers' markets are not an effective source of revenue for mid-sized farms, it is important to note that almost 20 percent of respondents mentioned that they also sell to wholesale markets (in addition, some mentioned "aggregators" or "stores", which as broad concepts could be referring to very similar wholesale markets). Even if mid-sized producers were not common in the data analyzed, this demonstrates that farmers' markets could, at least in theory, help to support mid-sized producers that otherwise might be bought by larger producers, as well as provide some differentiation that is not offered in wholesale.

The 19 percent of responses that described higher prices as a primary reason for participating in farmers' markets is cause for some concern. High prices can benefit any kind of producer, including those that usually focus on the wholesale market. It also creates a tempting opportunity for arbitrage.

Market managers' focus on aspects of competition between vendors is telling, in some ways, when it comes to the status of farmers' markets in the broader local food movement. The prevalence of local food throughout all parts of the food economy, including restaurants and

grocery stores (National Restaurant Association, 2018), dilutes the inherent benefits of differentiation that "local" provides, and which is often essential to the function of DTC sales (Galt et al., 2016). This is exacerbated in California by the presence of the highest grossing agricultural region in the country, right in the center of the state.

## Conclusion

Based on the data gathered in this research, the farmers' markets surveyed are very likely providing support for small-scale vendors, and producers who would not be profitable in the wholesale market. As such, these vendors are providing an alternative to the classical mass-production agriculture in California. However, these results are mixed, and many farms represented are not obviously different from California farms as a whole. This research also reveals a cautionary caveat regarding farmers' market chains such as Raw Inspiration. As "local" produce increases in popularity, driving more producers in to the market, competition could quickly drive out small-scale and new producers, and making farmers' markets edge closer to traditional retailers supporting existing structures of industrial agriculture. This is true whatever the size or management structure of the market, but if markets are going to continue supporting smaller, more innovative, newer producers, managers of these markets will need to be constantly vigilant about the impacts of this growing trend. Nonprofits, cities, individuals, and other local farmers' market stakeholders may have an interest in maintaining that vigilance. Private entities that are less connected to the markets and more concerned about the economic success of the venture are perhaps less likely to take these concerns seriously.

# Appendix 1: Interview Questions

**Local Food Interviews**

Vendor – Grower

Name:_____ Booth Name: _____

1. How long have you been attending this market?

2. Do you attend other markets?

3. Where was this produce grown? (Name of the farm, location)

4. Could you describe the farm? How long has it been in business? How many acres is it? What is typically grown there throughout the year?

5. Is the farm independently owned? A partnership? Is the land rented? (USDA 2014 Tenure, Ownership, and Transition of Agricultural Land)

6. Where else does the farm sell its produce? Where does it generate the most revenue?

7. What draws you to this market? Are markets worth the extra time and labor involved?

Notes

**Local Food Interviews**

Vendor – Representative

Name:_____ Booth Name: _____

1. How long have you been attending this market?

2. Do you attend other markets? For the same farm or different ones?

3. Where was this produce grown? (Name of the farm, location)

4. What can you tell me about this farm and the owners?

5. (If applicable) What can you tell me about the other places you work for?

6. Do you have the contact information of anyone I could talk to if I want more information?

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